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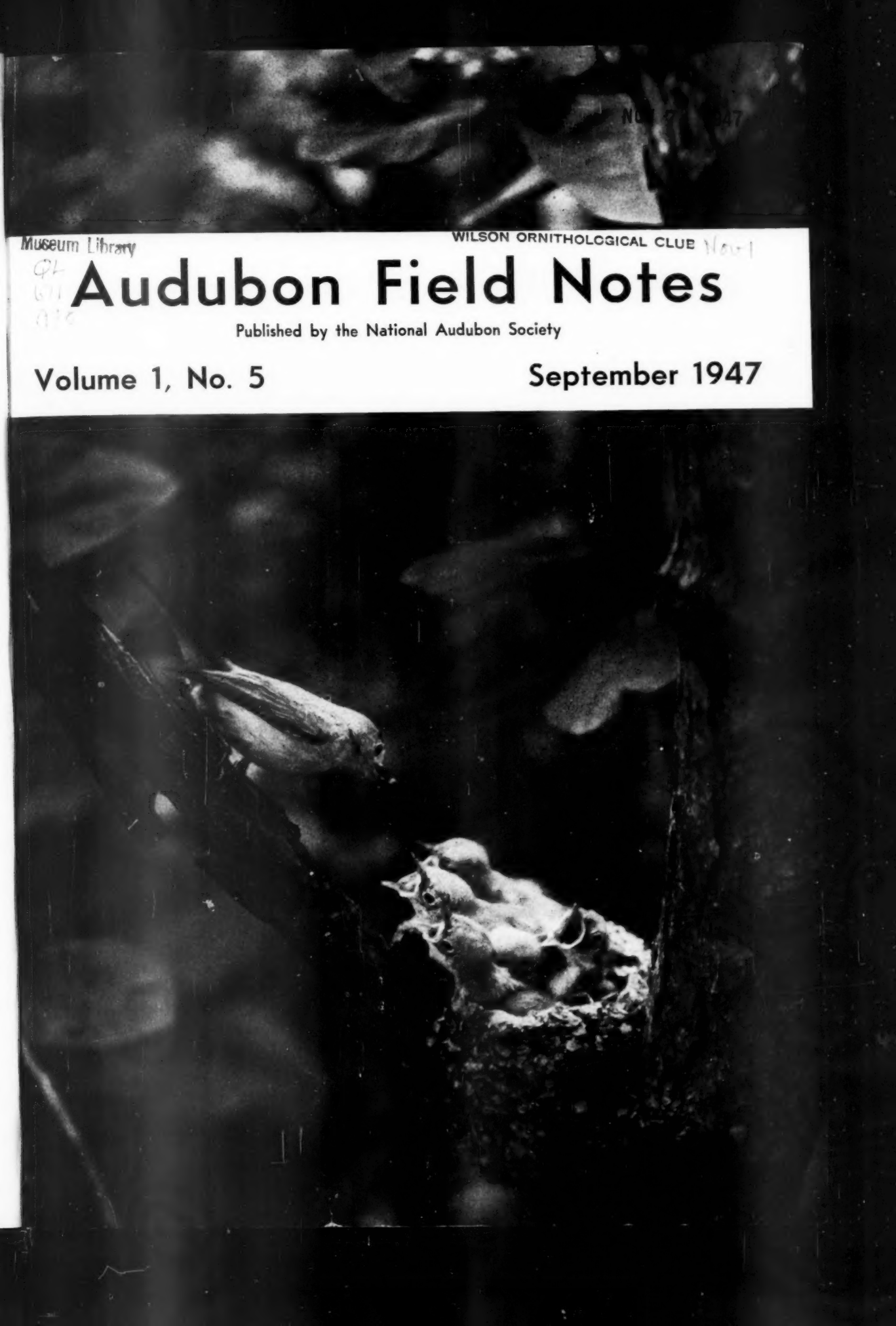

AUDUBON FIELD NOTES

A bimonthly magazine devoted to the results of bird watching

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SEPTEMBER 1947

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Cover photograph of blue-gray gnatcatcher by Ralph H. Lawrance

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Deadline for Christmas Count — Jan. 12!
Dates: December 20 through 28, 1947
For regulations see your July 1947 issue of *Audubon Field Notes*

THE CHANGING SEASONS

A Summary of the Nesting Season

Ludlow Griscom

THE breeding season often offers the best proof that man-made assistance is subordinate in importance to climatic phenomena. Conservation and "protection" must sometimes bow to Nature. Unfavorable weather and water conditions cause great losses in the potential crop of new birds even on the best managed wildlife refuges, even in undisturbed sections of the continent, and in groups of birds perfectly protected by and adapted to man and his works.

In the eastern states cold to cool and wet weather prevailed pretty generally into July. Classed as a humid climate, there was consequently too much water, particularly in swamps and marshes, and rails had a poor season, while nesting of many species began late, sometimes as much as two to three weeks. In Utah, an arid climate, a cool wet spring and early summer produced ideal conditions and a very successful breeding season. In North Dakota heavy rains in late June were very bad for ducks, upland game, and ground-nesting songbirds. Coastal Texas got losses both ways. It was very dry, with two periods of heavy rains. The drought eliminated considerable habitat and food for marsh birds, and the heavy rains caused losses of eggs and young.

Coastal California presents still another climate problem. Summer drought is the usual condition. All depends upon the extent of the late winter and spring rains. If great, the vegetation does not dry up so soon, seeds, fruits and berries are abundant, and insects furnish an ample food supply. Conditions were poor this year near San Francisco, so that the summer residents disappeared early, wandering off in quest of food. This type of seasonal change in the birdlife is unknown in the eastern states. Southern California reports enough food for the early nesters at least, but it became very dry later.

Another type of loss in the breeding season is much more intangible and very difficult to assay properly. There are losses from exceptional causes, generally termed disasters, though usually they are quite local. There are three illustrations in the current season.

1. A superb tern colony near Cape Romain, S.C., had 10,520 nests of royal with a scattering of Cabot's, Caspian and gull-billed terns. Very high tides washed the eggs away. Usually in such cases the birds lay again and the second laying might be successful. 2. Severe forest fires near Los Angeles destroyed 3500 acres of good woodlands in one block. This will inevitably cause profound changes in the local birdlife for many years to come, but the individuals of the species concerned will find the proper habitat in other places. 3. Bird Island in Great Salt Lake was famous for its great rookeries; in 1932, 4000 white pelicans and 20,000 California gulls. The island is now abandoned, perhaps in part because the lake has subsided enough to create a connecting sand-bar with the mainland. The gulls are perhaps accounted for by big increases in nearby colonies, but we have no clue as to what became of the pelicans, or where they went.

Double-crested cormorant.—Steadily increasing, not only on the Atlantic seaboard, but also in the interior. Now nesting in the eastern as well as the western Great Lakes, and Mr. Henry reports numerous colonies in North Dakota.

White pelican.—A straggler in eastern Pennsylvania in early August.

Sooty shearwater.—Compared to the hordes in the Pacific, a rare bird in the Atlantic. Record numbers observed off the Massachusetts coast, up to 1000 birds in sight at once (Edith Folger, off Tuckernuck Island).

Glossy ibis.—Additional records for the spring flight are one in Ohio, and four on Nantucket in late March. Also the first nesting record for South Carolina.

Herons.—Egrets continue their rapid increase almost throughout the country. Both species are now common breeders in southern New Jersey. The Louisiana heron now is moving northward, and will be found nesting at any moment in south Jersey. Stragglers reached Long Island, N. Y.

Ducks.—Decreases or poor seasons are reported in most areas. The wood duck is badly down from Massachusetts—New Jersey, but apparently did well in Ohio and Indiana. I see no decrease of black ducks in Massachusetts, but they are reported as fifty per cent down in the Philadelphia area. The nesting of the gadwall on Long Island, N.Y., is a notable extension of the breeding range.

Shorebirds.—The breeding range of the Wilson phalarope is moving eastward. It is now suspected of nesting in Michigan and on Lake Ontario. The black-necked stilt bred for the second time in South Carolina. After a possible absence of a century the oyster-catcher has returned to New Jersey, and a straggler was seen on Martha's Vineyard (Mrs. Wakeman), in late July.

Gulls.—Herring gulls and ring-billed gulls have been found nesting on Lake Erie. Several great black-backs bred on Long Island.

The great spring flight of gnatcatchers in the Northeast has produced at least four nesting pairs in northern New Jersey for the first time. The cerulean warbler is also moving northeast. It was cerulean warbler is also moving northeast. An unmated female built a nest in northern New Jersey, where other stragglers were observed all summer. It bred as usual in northeastern Maryland.

The eastward movement of western land birds continues. The yellow-headed blackbird now breeds in a narrow belt across Minnesota and Iowa to

Wisconsin, northeast Illinois and the Indiana dunes. Brewer's blackbird now breeds in Wisconsin and Illinois, for the first time in Michigan this season, and is a regular migrant in April in parts of Ohio. The dickcissel is also having an eastward "boom," and is abundant in Indiana. The western meadowlark is now locally common east to Chicago, and is reported to have nested in Michigan. No wonder the records for these birds on the Atlantic seaboard are increasing.

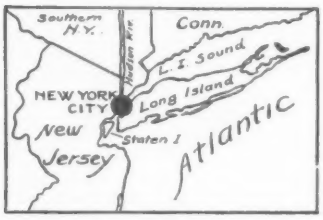
A black and white warbler and an indigo bunting reached California.

NESTING SEASON

June 1 to July 31, 1947

BOSTON REGION.—Mr. Griscom reported that observations in his region were insufficient to warrant preparation of his regular column. An account of the fall migration will appear in the January issue.

NEW YORK REGION.—The first half of May was unusually cold; on the 9th a record low temperature for the month of May was recorded and there were snow flurries in downtown Manhattan. The latter half of the month showed temperatures normal or above. Rainfall was heavy, particularly during the latter half of the month and rare were the days without some precipitation. These unfavorable conditions may explain reports of some unusually late nestings. Conditions in June were about normal but with hot, humid weather toward the close of the month. The first half of July was very wet but the temperature was normal. With the exception of early May, weather conditions of the breeding season were by no means adverse.



Grebes and herons.—As a breeding bird in this region the pied-billed grebe continues to show a numerical decrease. Local conditions, such as very high water in the early season, may be a reasonable explanation for a part of this year's decline but, through the past years, each season has shown fewer breeding birds here. Nesting attempts of the yellow-crowned night heron on Long Island were unsuccessful. At Massapequa three nests were under observation but in each nest the eggs were destroyed, presumably by predators. The former site of the nesting colony of black-crowned night herons, also at Massapequa, has been abandoned (Elliott). Predation by other birds in this area is heavy. Both American and least bitterns nested in very satisfactory numbers.

Waterfowl.—At Jones Beach a flock of 8 or 10 gadwall appeared in the spring and remained there to breed. These nestings were successful and on July 28, 54 young were counted (Sedwitz). Observers who have watched the site throughout the breeding season concur in the belief that the behavior of the adult ducks indicates that they are normal wild birds, making this the first authentic natural breeding record for New York state. The wood duck shows a further decrease and must now be considered a rare breeder in the region. High water interfered seriously with the nesting of gallinules and inland rails. It is probable that the number of young produced was relatively small.

Ospreys.—Occupied osprey nests showed no decline except in northern New Jersey where several former nesting sites have been abandoned.

Shorebirds and gulls.—Piping plover had a fairly good season, but on account of the increase of vegetation on many of the dunes where they formerly nested, their numbers have been locally reduced (Wilcox). Three pairs of great black-backed gulls bred on Cartwright Island; one young was banded (Wilcox).

Terns and skimmers.—The nesting of the common terns was generally successful although there is a frequent shifting of colonies. The breeding of roseate terns at Moriches, where adults were seen with young unable to fly (Elliott, Wilcox), may indicate a western extension of the breeding range of this species on Long Island. Least terns were fairly successful except on western Long Island where results were poor. The established colonies of black skimmers on Long Island were satisfactorily productive.

Gnatcatcher.—One of the surprises of the season was the number of nesting records of blue-gray gnatcatchers in northern New Jersey. Prior to this year there was but one breeding record for the region. This summer two nests were found in Essex County (Mrs. Wackenfeld) and two in Somerset County. In Bergen County two gnatcatchers were present throughout the breeding season but no nests were found.

Warblers.—The black-throated green warbler again bred in the deciduous woods in West Hills, L. I. Many of these birds breed in northern New Jersey but always in stands of conifers. The cerulean warbler has been unknown as a breeding bird in this region and it is rare here even as a transient. It was with astonishment, therefore, that a female of this species was watched building a nest near Lyons, N.J., on June 1 (Rebell). From June 9 to June 26 the bird sat on the nest as if incubating. She disappeared on the following day and was not seen again. Attempts to reach the nest to examine the eggs were futile for it proved inaccessible by any available device. No male was seen and apparently no young were hatched. It is probable that this female wandered far from the usual

breeding grounds and, at the proper time, followed the normal nesting pattern but, of course, the eggs were infertile. This is not the only report of the cerulean warbler in the region during the breeding season, At Ramsey, N.J., a male was seen long after migration was over and in early July a pair was recorded (Mrs. Dater). The prairie warbler is not unusual as a breeding bird in the lowlands of New Jersey but it is new to the extreme northwestern part of the state. On June 8 two singing males were found among the Canadian species at Flatbrookville (Eynon *et al.*).

Purple finch.—In New Jersey there has been but one authentic breeding record for the purple finch and that from the highlands in the extreme northwestern part of the state. This summer a pair was found building at Ridgewood (Mrs. McEntee). A few days later a second nest was found within a few yards of the first. Adults, other than those of the known nests, were frequently seen in the vicinity, indicating the probability of additional nests. The first nest was parasitized by a cowbird and, when the egg hatched, the unwelcome increment quickly ridded the nest of the other occupants. In the other nest three young were hatched, but in three or four days the nestlings and the one infertile egg disappeared. One additional purple finch record has been turned in. Adults feeding young near Delaware Water Gap in Warren County, N. J. (Conn).

Other land birds.—The pileated woodpecker continues to show a satisfying increase as a breeding bird in the northern counties of New Jersey. A drop is indicated in the breeding least flycatchers. This year the extending of the breeding range of the prairie horned lark is particularly marked. In northern New Jersey there is a material increase in the number of birds and also in the territory occupied. In the barrens of Long Island the hermit thrush bred as usual; many singing males were present throughout the season, and a nest with four eggs was found on July 4 (Raynor).—CHARLES K. NICHOLS, *American Museum of Natural History, New York 24, N. Y.*

PHILADELPHIA REGION.—Weather conditions averaged about normal during June, July, and August. No severe northeast storms occurred during this period, so nesting terns and skimmers did not suffer the usual washouts.

Herons.—Great blue, little blue, black-crowned night, and yellow-crowned night herons, and American and snowy egrets apparently had a successful season in southern New Jersey, as the usual numbers were observed. Louisiana herons, several of which were noted in Cape May County during the season, have not as yet been actually found breeding, although indications point that way. The heron rookery at Paulsboro, N. J., which was reported deserted this spring, was occupied somewhat later than usual, but by fewer birds than last year. A count made there on July 9 (Wm. Middleton), revealed the following counts: American egret, 110; little blue heron, 21; great blue heron, 2; green heron, 1; and black-crowned night heron, 100. A snowy egret was observed at Delair, N. J., July 27 (E. and H. Moore).

Ducks.—Breeding ducks were way down in this area; black ducks dropped 50%, and wood ducks were almost lacking. The only wood duck to come to our attention, had a brood of 4 downy young at Paulsboro, N. J., in June (Regensburg). A pintail was seen at various times during the summer at Delair, N. J. (Corn *et al.*).

Hawks.—Nine duck hawks (2 families ?) were seen by Regensburg on the Pennsylvania side of the Delaware Water Gap on June 25. The same observer reported an occupied osprey nest on a telegraph pole at the north end of Long Beach, N. J., Aug. 17. This is apparently the first breeding record for the island in a good many years.

Shorebirds.—Once more, after no one knows how many years, the oyster-catcher can be counted as a breeding bird on the New Jersey coast. 4 birds were seen, and a nest with 3 pipped eggs was found on Little Beach Island on Aug. 27 (Evelyn Kramer, Quinton Kramer, and Lukens). An upland plover with 3 downy young was seen at Evesboro, N. J., July 22 (E. and H. Moore). A curlew sandpiper was reported at North Wildwood, N. J., July 9 (Choate).

Terns and skimmers.—Good colonies of least and common terns occupied various beaches and sandy fills on the New Jersey coast. In some areas, notably Brigantine Island and the north end of Long Beach Island, these birds have been driven off by red foxes. Whether introduced intentionally or otherwise, these animals have had things their own way and have increased accordingly. A Caspian tern was seen at Delair, N. J., on Aug. 10 (Haines), a rather unusual date for this area. There are skimmer colonies at Longport, N. J. (200), Little Beach Island (100), Sand Island above Tucker Beach (400), and the lower end of Island Beach (50). The latter is the most northern colony that we are aware of on the New Jersey coast.

Flycatchers and martins.—A pair of alder flycatchers occupied a willow thicket at Westville, N. J., all summer (Manners). Another pair was noted at Delair, N. J. (Haines). No nest was found in either case, though the birds gave every evidence of breeding. John Heaventhal of Hurfville, N. J., probably has the largest martin colony in the state. On July 17, 270 of the 379 rooms in his 9 apartments were occupied. On this date several observers watched the martins for an hour or more in the evening; surprisingly enough no one was bothered with mosquitoes. Draw your own conclusions.

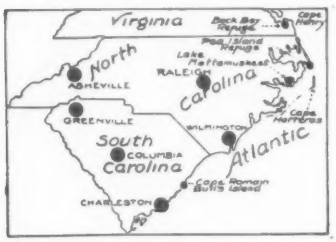
Wrens and mockingbirds.—An interesting late

breeding record of the Carolina wren was submitted by Culver. On July 10, a pair started to clean out a pocket in the rock cliff six feet from his kitchen door. Immediately thereafter they began building a nest. One egg, found on July 26, may have been laid the previous day. The second was laid between 6:15 and 6:45 a.m. on July 27, and the third egg was in the nest by 8 a.m. on the following day. A bird was first seen on the nest at 5 o'clock that afternoon; it spent the night there, apparently incubating. A fourth egg was in the nest at 8 a.m. on the 29th. Two eggs hatched on Aug. 12, and the other two on the 13th—one in the morning and the other in the afternoon. Mockingbirds seem to be steadily increasing in this area. There are perhaps a dozen points within 10 miles of Philadelphia where these birds can now be found with reasonable certainty. Four were seen at Delair, N. J., Aug. 4 (E. and H. Moore).

Warblers.—MacDonald reports seeing 6 cerulean warblers at Conowingo, Md., June 23. This area 65 miles southwest of Philadelphia appears to be the nearest point where the cerulean can be found with certainty. Bloor reports a Kentucky warbler nest with 4 eggs at Lambertville, N. J., June 24. This we believe constitutes the first breeding record for this section of the state.

Rarity.—A white pelican was observed on Aug. 1 and 5 near Unionville, Pa., by Mrs. Charles Thomforde.—JULIAN K. POTTER, *437 Park Ave., Collingswood, N. J.*

CAROLINA REGION.—Temperatures were near normal for the period, with June drier inland, and July wetter on coast, than normal.



COASTAL SECTION. — *Breeding.* — Interesting nesting records were (Charleston, unless otherwise shown): red-wings hatched June 1; pine warblers had young on the wing at Lake View, S. C., June 3; rough-winged swallows were well on the wing, June 6; swifts had eggs (inside wall of boat-house) June 4; young crested flycatchers left the nest June 16; painted buntings were feeding young near Wilmington, N. C., June 28 (C. McAllister), and on Folly Beach, S. C., July 9 (Rabb); at or near Wilmington blue grosbeaks had young in the nest June 3, and robins likewise, June 30 (McA.); at Back Bay, Va., E. B. Chamberlain, Jr., suspected the breeding of yellow warblers (one, or a pair, noted from May 22 to July 12), Henslow's sparrows (8 noted July 24), and marsh hawk (2 or 3 noted from June 9 through July 27); on June 4, at Cape Romain, S. C., a remarkably fine tern colony held a conservatively estimated 10,520 nests of royals (almost wholly of one egg each), 150 least terns (1-2 eggs each), 18 Cabot's, 8 Caspian (A. Sprunt and E. B. C.), and on June 16 most of these eggs were hatching, and 6 nests of gull-billed terns were noted (2-4 eggs); a later visit to this colony, June 24, showed fully 90% destruction of young from very high tides, and on July 25 less than 2000 young were found, of which 900 were banded (H. S. Peters, *et al.*); with 200 nests noted (and 50 young banded), the Romain pelican colony was down to one-third of last year's population (H. S. P.); laughing gulls (5 nests) had eggs, and skimmers were just hatching, July 22, also because of previous flooding; herons and white ibis near Charleston had excellent seasons, and, in addition to the Fairlawn colony, the white ibis colony at Blakes Reserve, Santee, showed some 300 pairs; five swallow-tailed kites (family group ?) were noted near Summerville, S. C., July 1 (C. B. Jenkins, Jr.); two Mississippi kites were noted near Charleston (becoming increasingly scarcer), in June and July (Burton and Dingle).

Migration.—Very late were two gannets at Folly Beach, S. C., July 2 (Seebeck), and uncommon inshore was a Wilson's petrel at the same place, July 29 (A. S., Jr.); normal were 8 dowitchers, June 24, and 15, July 22, at Romain; 2 black-bellied plover at Romain, July 22, and about forty at Folly, July 29; 20 willets were at Romain, July 22, and several at Back Bay, Va., in late July.

Rarities.—[The May issue of this section carried a confusingly ambiguous reference to a first record for Smith's longspur. The statement should have been made that on December 28, 1946, George Rabb reported studying a bird of this species, at distances of 10 to 20 feet (and with glasses), near Lumberton, N. C. Attention is now directed to the report (*Audubon Field Notes*, May-June, 1946, p. 98) of Smith's longspurs seen by J. C. Crawford, near Statesville, N. C. in mid-January, 1946. This record is clouded by the fact that these Statesville birds also have been recorded as Lapland longspurs (*The Chat*, May, 1946, p. 57). All of this emphasizes the fact that such records belong on hypothetical lists until substantiated by specimens.] The glossy ibis was first recorded as breeding in South Carolina when H. R. Sass saw a pair of adults June 15, in Blakes Reserve, Santee, and a nest of 2 young was found July 3 (Sass, Sprunt, and Chamberlain); the second South Carolina breeding record for the black-necked stilt was made on June 26, when W. Nicholson and H. L. Harllee found 2 nests (4 eggs each) on South Island; 16 glossy ibises were seen on South Island, June 26 (N. and H.); 2 or 3 black-necked stilts were observed at Romain, June 2 and 16 (DuPre and Burton); a "dingy and ragged" dovekie seen June 9, within 75 ft. on sand-bar at Wrightsville Sound, N. C. (J. Funderburg), was perhaps the bird seen December 26, 1946, within a mile of this spot; on June 2, DuPre reported an unusual number (14) of avocets, "quite tame", at

Romain; on July 29, on Folly Beach, a fourth or fifth South Carolina record was made for Baird's sandpiper (A. Sprunt, Jr.); a surprising food item was noted when a downy-young gull-billed tern was found with a lizard's tail protruding from its gape, June 24, on Cape Island (E. M. B. and E. B. C.); removal of the lizard showed it to be an adult *Cnemidophorus*. Near Charleston, in early June, Thomas Uzzell found a towhee's nest, with towhee eggs and one yellow-billed cuckoo egg.

INTERIOR SECTION.—Near Camden, S.C., three wood ibises were seen several times during the third week of June; there was no indication of nesting (Layton). Yellow-crowned night herons were reported nesting at Rocky Mt., N.C., June 9 (2 fuzzy young, Joyner), and at Charlotte, June 7 (3 eggs). Both nests were 40 to 50 ft. up. The Charlotte nest was in the same pine where a brood of 4 was raised last year. This year's brood was probably destroyed soon after the eggs hatched.

At Raleigh, an indigo bunting's nest contained 2 bunting eggs and 1 cowbird egg, June 6; and at Rosman, Transylvania County, N.C., a blue grosbeak's nest contained 1 grosbeak egg and a cowbird egg on July 5. Also at Raleigh, a chat's nest held 2 eggs and 1 young, June 6; and a brown thrasher that began laying a set of 4 eggs on May 23, had young by June 8. Other Raleigh observations include a flicker nest with 6 eggs on June 6, and a mountain vireo nest with 4 eggs (photographed) 7 ft. up in a small dogwood (Wray).

At Charlotte, a greater yellow-legs was watched and heard by Hon on July 20, and redstarts were seen feeding small young out of nest on July 15 (Hon). Towhees appear more abundant than ever about the city with second brood young on the wing on August 9. On July 31, a pair of bob-whites escorted 6 young across a paved street in the East section of the city. Parula warblers seemed to be nesting but no nests were found.

At Columbia (Edgewood Park), Mrs. Charles and associates found ten wood thrush nests, June 1, with young not long on the wing; at least one to three goldfinches were noted from June 8 through July (at least one female and two males, the latter singing frequently) but nests were not found (Bristow and Charles); a blue grosbeak nest was found in early June at the P. B. Hendrix place in Lexington County, and another brood was seen following parents in Columbia in mid-July (Mrs. Faver); young mourning doves left a nest in July that had previously fledged young in May; the latest brood of Carolina wrens left their nest on July 28.—E. B. CHAMBERLAIN, *Charleston Museum, Charleston, S.C. and* B. R. CHAMBERLAIN, *Charlotte, N.C.*

PENSACOLA (FLA.) REGION.—The last freeze of the winter came on March 3, but the whole month remained cold. Normal spring and summer

temperatures prevailed from early April through the remainder of the period. March had almost 3 times its average rainfall, and April and May each exceeded its normal by more than 80%. Precipitation in June was normal but July was dry, and upland ponds receded to low levels or dried up altogether. Much of the excessive rainfall of the early months came in heavy downpours, but the period April 15-May 20, the peak of the nesting season, enjoyed light and infrequent showers. On the night of March 29-30, the heaviest hailstorm ever recorded by the local Weather Bureau swept a mile-wide path across the city of Pensacola.

The cold weather of March had discouraged normal nesting and the hailstorm did far less damage than would have been the case in a normal season. Only a few nests of the mourning dove, mockingbird and English sparrow were under observation. Of these, the doves' nests and the tree nests of the English sparrows were riddled or completely demolished. One mockingbird nest, in low shrubbery under the lee of a house, escaped damage and the young birds were reared successfully.

Grebes.—Pied-billed grebes repeated their attempt of several years ago to nest in a pond at city limits and were again defeated by the proximity of a populous housing unit; the first egg was laid on May 17; the nest was destroyed and a second nest built by June 7, when one of the adults was seen incubating; receding water exposed this nest to access from shore and it, too, was destroyed.

Herons.—A small colony of Ward's herons, mentioned often in this column, met a decisive fate this season when all the large trees in the area were felled. The colony had persisted for several years in spite of extensive drainage and road-building operations and the felling of some trees in the immediate area. In 1946, a ditch was dynamited through the heart of the colony at the height of the season. This year, only a few pairs of herons returned to the site. Next year, none will return. A young green heron not long out of the nest was seen on June 7.

Hawks.—A broad-winged hawk was seen incubating on April 27. A bald eagle was seen incubating, December 14, 1946, and another on December 29.

Plovers and terns.—A well-grown but still flightless young Wilson's plover was seen on June 18 and another, less than a week old, on July 20 (very late). Three sets of eggs of the least tern, May 25, were the first to be laid in a large colony; the first young were seen on June 18; and a late brood of young, just in first flight, July 20.

Doves.—The unseasonably warm weather of Jan-

uary was reflected in the mating flight of a pair of mourning doves on January 26, but no nests were found until after the coldest part of March; nesting proceeded normally after that, except for the hailstorm destruction as noted. Doves were in full song, August 17, indicating preparation for still another nesting.

Nighthawks and woodpeckers.—Young nighthawks not more than 2 days old were found on July 6 (late). A red-bellied woodpecker was found incubating, May 18; and another feeding a late brood in the nest, July 6.

Perching birds.—Crested flycatchers were seen carrying nesting material, June 1. Purple martins had a successful season and a large crop of young was produced in many colonies throughout this region. A brood of fish crows left the nest on June 19 (Mrs. J. F. Wernicke). A late brood of Carolina chickadees was still being fed in the nest, May 7 (Mrs. Wernicke). A brood of Carolina wrens was almost ready to leave the nest, May 4; and a nest was completed for a second brood, May 18. A few mockingbird nests were completed before the hailstorm; other nests and broods at various times throughout the season, representing probably a succession of 3 nestings; an adult was seen feeding young in the nest, August 17 (very late). A brown thrasher was seen incubating, April 6 (nest had been built and possibly eggs laid before the hailstorm); a brood of young was almost ready to leave the nest, June 15; and a brood just out of the nest on July 14 was very late.

Blue-gray gnatcatchers were building as usual on April 13, as their preferred nesting material is most readily available at that season; incubating birds on May 18 were probably engaged in second attempts after an earlier failure; material for the second nest is obtained by tearing up the first one and rebuilding at another site. Young loggerhead shrikes just out of their nests on May 25 and 31 were certainly second broods. A brood of white-eyed vireos, being fed out of the nest on August 17, was the latest I have ever known. Two pairs of yellow-throated vireos (rare breeders), the males in full song, were seen on June 7, when they were undoubtedly nesting.

A pair of parula warblers was seen building, April 13; another pair was feeding young in the nest on May 11. A very late brood of orchard orioles was still in the nest and another brood just leaving the nest on July 20 (Mrs. A. L. Whigham). Two broods of Florida grackles were already on the wing on May 11 (very early).—FRANCIS M. WESTON, *2006 E. Jordan St., Pensacola, Fla.*

OHIO-MICHIGAN REGION.—The total rainfall for April, May and June was the heaviest in history for the same period. The early part of the

nesting season was extremely chilly, and cool weather persisted through July even though the rains had stopped. The first really hot days of summer came after August 1.

Nesting was late for almost all species, those which normally begin in March or April as well as those which begin in May or June. In northern Michigan, where frosts occurred after the middle of June, warblers and sparrows were about ten days behind schedule. For example, in a series of Kirtland's warbler nests under observation, the first young warbler was hatched on June 23.

Herons and ducks.—The little colony of American egrets, discovered in 1946 among the black-crowned night herons and great blue herons on West Sister Island in western Lake Erie, now has about 20 nests, twice as many as last year.

The marshes of Lake Erie produced few ducks this year. Adults were not numerous and very few broods were seen. Probably the most successful ducks relatively were wood ducks and blue-winged teal.

Birds of prey.—A goshawk's nest with eggs near Atlanta, Michigan, on May 12 (Black) is an addition to the slowly growing series of breeding records for the goshawk in the Lower Peninsula. Van Camp at Toledo located 11 nests of the great horned owl, six in cavities and five on stick nests. All six in cavities were successful but four of the five open nests failed. Although this small group of nests does not establish the fact definitely, it suggests that an extremely cold March is unfavorable to open nests of this early-breeding bird.

Terns and upland game birds.—Again the terns of western Lake Erie had poor nesting success; the highest water level in history exposed to wave action many favorite nesting places. Pheasants and ruffed grouse remain below normal and bob-white remain at an extremely low level in northern Ohio and southern Michigan.

Brewer's blackbirds.—A nest of Brewer's blackbird near Kalamazoo in early June (Fleugel and Hinds, Wallace) was a major discovery. This is the first actual nest of the species to be found in Michigan, although adults had been seen feeding young out of the nest in the Upper Peninsula in a previous year. This discovery has special interest to people in Ohio because it raises the possibility that there may be a small breeding population as far east as Ohio to account for its fairly regular occurrence in early April at Toledo. Observers throughout the region should be alert for this bird, which suggests a small, short-tailed grackle. Un-

like the somewhat similar rusty blackbird, which prefers swampy woodlands, the Brewer's blackbird is likely to be found in open fields.

Other items of interest.—Several Wilson's phalaropes, possibly nesting, were seen in June on the west side of Saginaw Bay (Laycock, Black). A white-eyed vireo was observed on July 20 and 23 near Youngstown (Lewis and Stewart). This vireo, which nests locally in southern Ohio, is seen occasionally north of its range during the spring migration but is seldom reported after June 1 in northern Ohio. A brown creeper near Cleveland on June 21 (Hill) and a least flycatcher in Trumbull County near the Pennsylvania line on June 28 (Skaggs), were probably stragglers from spring rather than nesting birds. Although actual census data are lacking, it appears that tentative generalizations might be offered with regard to a few species which occur rarely or locally in this region: dickcissels and Henslow's sparrows are more widely distributed than usual and short-billed marsh wrens are missing entirely from many areas where they formerly nested.

Rarities.—The greatest rarity of the season was an eastern glossy ibis on June 22 near Toledo (Van Camp). This is the second record for the species in Ohio in modern times. A hen spruce grouse was seen on June 15 among the jack pines in Oscoda County, Michigan (Wing, Van Tyne, and Mayfield). It was approached closely and watched as it fed on pine needles and blueberry leaves. There are few modern records for the species in the Lower Peninsula.—HAROLD MAYFIELD, *2557 Portsmouth Avenue, Toledo, Ohio.*

MIDDLE-WESTERN REGION.—The cool and below-normal temperatures of April continued through July, when 100-degree temperatures were

the rule. Precipitation was above normal in May, and particularly in June, when 15 or more inches of rain during the month caused three floods in central and southeastern Iowa, and proved sufficient to ripen wild fruits even though an average of three weeks late.

Nesting conditions.—Flooding of marshes and fields after clutches of eggs were laid resulted in the loss of many waterfowl and upland game nests, while grebes and several marsh species, with floatable nests, seemingly were little bothered. High winds, rain, and low temperatures accounted for the loss of many tree-top nesting species although renesting appeared to produce broods in time to consume soft fruits.

Waterfowl.—Little information on waterfowl nesting was secured this season. A pair of ruddy ducks with young was seen on Rock River in Rockford, Illinois, by Don Prentice. Wood ducks were noted in slightly increased numbers at West LaFayette, Indiana, when Irving Burr saw 6 broods. Nesting birds were noted at Springfield, June 11 (Bonney), and at Palos Park, Cook Co., Ill., where young, just hatched, were seen on June 15 by Edward K. Hammond.

An Indiana breeding record for the Canada goose was submitted by William B. Barnes, Pittman-Robertson project leader for the State, who considers the bird a permanent resident in Jasper County. Two pairs of these birds were released on the Jasper-Pulaski Game Preserve in 1935. Records indicate up to 30 young being brought off by nesting geese since their liberation.

Other water birds.—At Rockford, Ill., Prentice found 29 nests of the great blue heron, averaging three young per nest. At Depue, Bureau Co., Ill., Karl Bartel noted 300 nests of this bird. He reported American egrets in increased numbers; about 20 nests in 1946 and over 50 nests this season at Depue. G. Blair Coursen had a report, apparently reliable, of the American egret nesting on Horicon Marsh, near Waupan, Wis., on the state portion of the refuge. Summer records of this bird were scarce. A flock of 9 was seen flying over Lake Springfield, July 21 (Bonney), and one in Palos Park near Chicago, June 22, Mrs. A. L. Campbell.

Prentice reported 700 young black-crowned night herons at Rockford, while the colony near Skokie, Ill., continued to have about 125 nests.

A king rail was found nesting at West LaFayette, June 15, by Burr, who also noted an apparent increase in least terns, with 6 where 1 was found last season.

Birds of prey.—Two nests of the Cooper's hawk near Springfield, Ill., were found by Bonney, and several were seen by Prentice near Rockford, Ill. The latter observer reported several nests of the marsh hawk, and one of the sharp-shin (rare); he stated that all hawks except the red-tail were nesting late. The report by Prentice of a Swainson's hawk nesting at Rockford would seem, much more logically, to be that of a broad-winged hawk.

A hawk described as three times the size of a crow, and nesting on an apartment building in north side Chicago, proved to be a sparrow hawk which actually nested in a ventilator hole at a third floor level. The entire neighborhood had become aroused because of the magnified killing of songbirds attributed to these ferocious demons. Another pair, nesting in a tree stub about a mile west, went unnoticed by nearby residents.

Three great horned owl nests were found at West LaFayette, Ind. (Burr), and a long-eared owl was found nesting in a broken-off oak trunk at River-

side, Ill., May 14 (Esther A. Craigmile). At Springfield, Ill., a family of 2 adult and 5 young short-eared owls spent most of July roosting and exercising their young in Lincoln Memorial Garden (Bonney). A brood of saw-whet owls, unable to fly, was found by Prentice at Rockford, Ill.

Shorebirds.—A pair of willets seen June 26 in the Indiana Dunes suggested nesting but Robert Vanderpool, Jr., who observed the birds for some time, failed to locate a nest. Solitary sandpipers were noted at Rockford, Ill., on July 16 and 20 (Bennett), and 2 were seen on July 20 northwest of Springfield (Bonney); these were probably early migrants. Bonney reported very few upland plovers this summer near Springfield, while another local observer considered them more abundant than usual west of that city. At Rockford, Ill., Harold E. Bennett considered these birds twice as numerous as last year, while at Belvidere, Ill., Mrs. Wm. D. McMaster found the usual two pairs. In Wisconsin, Dundas reported about 15 pairs using Horicon Refuge, while Kruse reported none at Loganville. Burr knows of two localities near West LaFayette where the birds are present and probably nest, while at Indianapolis no records were known to Miss Campbell. Martin Grant reported the bird as absent this season near Cedar Falls, Iowa.

Land birds.—The nesting of a pileated woodpecker near Quincy, Ill., was reported by Musselman in the previous report. A red-bellied woodpecker, with 3 fresh eggs, was found May 24 at Worth, Cook Co., Ill., by Edward K. Hammond, who also noted 2 nests of the orchard oriole in Palos Park, June 6 and 8. Karl Bartel found a half built nest of the Bewick's wren, June 12, located in a ditch digger in Blue Island, Ill. The nest was destroyed to induce the bird to build elsewhere.

Brewer's blackbird does not breed at West LaFayette (Burr), nor at Springfield (Bonney, Eifert), but Bartel found 3 to 4 pairs at Dalton, Ill., the past 3 years—a nest with 4 young being banded June 23. This species breeds also on Horicon Refuge, where Gray found a nest on June 11.

All reports of yellow-headed blackbirds as breeders appear to converge from the western marshes and potholes across Minnesota and northern Iowa, narrowing across Wisconsin but including Horicon Refuge and the Lake Geneva country, the glaciated lake region of northeastern Illinois, and around the tip of Lake Michigan to the Indiana Dunes. There are no reports from West LaFayette or Indianapolis, Indiana, but several nesting localities were located near Fox Lake, Ill. Breeding birds were found June 27 on Sullivan Lake near Fox Lake on the McHenry - Lake County line (DuMont). Both young and adults were photographed on an arm of Fox Lake by representatives of the Illinois Conservation Department during July, and other young were seen in the willows at Fox Lake August 1 (DuMont). Mrs. McMaster reported seeing these birds regularly near Barrington, Ill., and they formerly nested, but have been absent the past few years. On Horicon, this species was observed carefully both seasons, and its breeding territory was found to have expanded this year.

For Indiana, the migrant shrike is reported as nesting in fair numbers at West LaFayette; by driving about 12 miles in open farm land, 3 or 4 might be seen (Burr). At Springfield, Ill., Bonney reported it as not very common, with a pair that looked like young, seen near town on July 27. Mrs. McMaster reported the shrike as not so abundant as formerly, with two observations only, on May 13 and 17, at Belvidere, Ill. On Horicon, no breeding birds were observed, while at Cedar Falls, Iowa, Martin L. Grant reported this species as common, but local as a breeder.

The dickcissel is an abundant summer resident at West LaFayette, Ind.; a drive on back roads disclosed 30 or 40 singing males all through June and July (Burr). It was reported as nesting at Indianapolis (Campbell); and at Belvidere, Ill., Mrs. McMaster indicated that on several roads these birds could be found every few rods and seemed to be increasing. It was absent at Horicon, Wis. (Dundas), and seen only once this year at Loganville, Wis. (Kruse). The dickcissel is common at Springfield (Bonney), increasing at Rockford (Bennett), and abundant at Cedar Falls, Iowa (Grant).

There is no record of the Bell's vireo at West LaFayette, although it last nested at Indianapolis —a short distance south—in 1946. It is very abundant at Springfield (Bonney), and Eifert reported them as in the willowgrass marsh, nesting abundantly in blackberry tangles and in the scrubby elm, locust, and willow growth. In the southern third of Iowa it was found nesting most frequently in the hazel bushes in open brushy country.

Distribution studies of breeding western meadowlarks will provide a most unusual picture. In Indiana neither Campbell nor Burr had records. At Chicago it was heard all summer at Orland Park (Bartel), and along the Plainfield and Willow Springs Roads during June 1947 (Craigmile). At Belvidere, Mrs. McMaster considers it as very abundant, and as plentiful as the eastern meadowlark; while at Rockford it was three times more numerous as a nester (Bennett). It was seen and heard many times at Horicon Refuge (Dundas), although Kruse reported few at Loganville, Wis. The status of this bird at Springfield, Ill., has not been clarified. It is abundant at Cedar Falls, Iowa (Grant), and westward.

Bonney found the sycamore warbler nesting at Springfield, and Craigmile had a Carolina wren near LaGrange, Ill., on June 25—her first summer record. The chat was present in the Indiana Dunes all summer, and was seen on July 23 (Mannix). Burr reported an increase in mockingbirds at West LaFayette, with 3 localities where nesting was probable. These were his first records since 1941. Karl Bartel noted a 60% decrease in nesting cliff swallows—100 nests in 1946 and 39 in 1947—due

to new construction nearby. He found 90% of the bluebird houses being used a second time. Hodges reported the bobolink as disappearing about Davenport, Iowa, with continued breaking up of the remaining prairie tracts. He found the red-eyed vireo to be scarce, while the wood thrush was much improved after its local decline of last year, and the warbling vireo and black-billed cuckoo were more numerous. Bonney found the summer tanager at Springfield, Ill., July 3 and 17. She considered the towhee as more abundant than before.

Virginia Eifert, in reporting on an ecological study in which she is assisting her husband—observing changes resulting from the impoundment of Lake Springfield in 1934—concluded that few, if any, birds were lost through the changed habitat and that many marsh species were increased. This is one way in which bird populations undergo changes.—PHILIP A. DUMONT, *Evanston, Illinois.*

MINNESOTA REGION.—The cold weather of early spring continued on into the summer, but the dryness was somewhat alleviated by the precipitation in June which was 25% above normal. The mean temperature for the month of June was 2.9° below normal. July had a mean temperature of 72.8° which was slightly above normal, but it was another extremely dry month with a precipitation of 0.96 inch as compared with 3.93 inches which is normal for the month. Early August has been hot and dry.

The unusually dry weather retarded the growth of vegetation, and this in turn retarded nesting by about two weeks. This year Dr. W. J. Breckenridge reported a wood duck nest with 19 eggs hatched on May 29 (May 18 last year). Another nest of 26 eggs was destroyed by predators just at the time of hatching on May 27. Brother Pius, who carries on the extensive nesting study of goldfinches started by Brother Hubert, reported that nesting had been retarded by about two weeks, because neither nesting material nor places to build nests were present at the usual nesting time.

Loons and herons.—At Itasca Park, in the north central part of the state, a loon was incubating eggs on June 11 (Breckenridge and Gunderson). Six broods of pied-billed grebes, with 2 to 5 young in each, were seen in a small marsh just south of Minneapolis on July 18 (Mr. A. C. Rosenwinkel). The large heron rookery on Rice Lake, just north of St. Paul was visited on June 18 by Brother Pius and his students, who found about fifty occupied nests of both the great blue heron and the black-crowned night heron. Last year the first American egrets were reported from Hastings, Minnesota, on July 15, but no reports of the northward post-breeding wanderings of these birds has been received so far this year (August 8). Two were seen flying about at Heron Lake on May 30, but the limited time at our disposal did not permit of a search for a possible nest (Minnesota Bird Club).

Ducks.—Mallard and blue-winged teal nests were reported about the last week of May, which is later than usual. Three female ruddy ducks with 2, 4 and 5 young in their broods were seen south of Minneapolis on July 18 (Rosenwinkel). Rosenwinkel added a further note on this observation: "I was amused to see the young having acquired the habit of thumping the bill up and down as the males do in courtship." Jerome Stoudt found the ring-necked duck the fourth most common breeding duck on the Chippewa National Forest in northern Minnesota during a study carried on from 1937 to 1940, but farther south it is only occasionally seen during the nesting period. About three were seen on a marsh south of Minneapolis on July 18, but whether or not they were nesting could not be determined (Rosenwinkel). A female ring-neck with 6 or 7 young was reported from north of St. Paul on July 6 (F. L. Jaques). Two broods of downy young red-breasted mergansers were seen fourteen miles east of Grand Marais on Lake Superior on July 22 (Breckenridge). Apparently the American mergansers which are seen along the shore during the wintertime move inland to nest, and the red-breasted merganser replaces them.

Hawks and shorebirds.—A Cooper's hawk nest with four eggs was found in Goodhue county, southeastern Minnesota, on May 15 (Breckenridge). Young killdeer just out of nest were seen north of St. Paul on June 21 (Brother Pius and students). The upland plover, which was a rare sight only a few years back, seems to be increasing in the sand plains north of Minneapolis; several young just out of the nest were observed there on June 22 (John Jarosz).

Gulls and terns.—The herring gulls which are permanent residents along the shore of Lake Superior, congregate on the numerous small islands just off shore for their nesting activities. One such island 14 miles east of Grand Marais was visited on July 23 by Breckenridge, who found one nest with one egg and many young ranging from the late downy to early flight stages. The adults were extremely wary, a trait which they lose away from their nesting sites, and particularly when feeding near the fish houses. A large colony of Franklin's gulls was visited by members of the Minnesota Bird Club over Memorial Day weekend. Several members made the crude calculation of 50-60 nests per acre; most nests contained three eggs. A few

(Continued on page 183)

DISTRIBUTION OF NORTH AMERICAN BIRDS

In the May issue of *Audubon Field Notes,* distribution maps showing the breeding range of the lark sparrow, *Chondestes grammacus,* and the black skimmer, *Rynchops nigra,* were published with the request that additional nesting data be sent in to bring these maps up-to-date. A very fine response has been received from some regions, but additions, corrections, and comments on abundance are still needed from many other areas. Both the lark sparrow and the skimmer maps have been reprinted in their original form, and copies will be sent upon request to observers who are in a position to furnish additional data on these species.

An announcement was made in the May issue to the effect that winter distribution maps for these same two species would appear soon. Inasmuch as these species winter in only a very restricted part of the United States, it has been decided to substitute the winter distribution of the fox sparrow, *Passerella iliaca,* and red crossbill, *Loxia curvirostra,* which together cover practically the entire United States and southern Canada. This will give our readers a much greater opportunity to participate, and make a contribution to the knowledge of the distribution of North American birds.

The first thing that will strike you about each of these maps is the small number of dots for each species. This is due largely to the lack of *specific* information about the wintering of these two birds. Scores of other records might have been added on the basis of statements such as: "winters", "seen twice in winter", or "common migrant, rare in winter". But observers differ in their understanding of the term "winters"; many birds seen in mid-December, or even on Christmas Bird Counts, either depart for the South or perish when lower temperatures or heavy snows arrive. Yet the fact that a bird which normally departs in October is seen in mid-December has more than once resulted in a report of "wintering".

In order to eliminate such reports, a rather short and arbitrary period has been chosen for the winter distribution maps. This period, the same as that recommended in the July issue for the Winter Bird-population Study, includes only the month of January in the southern states, with the addition of the last week in December (Dec. 25-31) and the first week in February (Feb. 1-7) in the north. Here again an arbitrary line has been adopted; northern states are those lying to the north of (but not including) California, Nevada, Utah, Colorado, Kansas, Missouri, Kentucky, West Virginia, Maryland, and Delaware.

To increase the value of the distribution maps, four symbols have been adopted to indicate relative abundance. An *open circle* indicates a definite occurrence but shows that the relative abundance at the point in question is either *unknown* or that there are conflicting reports as to the bird's status. If the *left half* of the circle is shaded, the bird is *rare*; if the *lower half* is shaded, the bird is *uncommon*; and if there is a *solid dot*, the bird is *common* or *abundant*.

At the extremities of a bird's range only published sight records by competent observers, or occurrences backed by specimens, have been used.

Although most birds are of irregular occurrence in winter at the extremities of their range, no symbol of irregularity has been adopted. The status as shown has been determined from the average abundance of the species *in those years when it did occur*, provided it occurred at least once in five years. It may be possible to indicate limits of irregularity of some species by dotted lines in the final maps.

A peculiar situation exists in the winter distribution of the red crossbill as this bird is not only irregular in its migration or wandering, but in its nesting habits as well. Some of the southernmost records have occurred in spring or fall, and in other cases there are breeding records for January and early February. In order to standardize the distribution maps, however, it has been found advisable to stand by the same rules for each species; so the records shown here all fall within the given period.

Manner of submitting information.—As in the case of the breeding maps, the success of this project depends entirely upon you. If there is no spot in your immediate vicinity, or if the status is incorrect or omitted, send in as complete information as you can regarding the bird's present status. This should include:

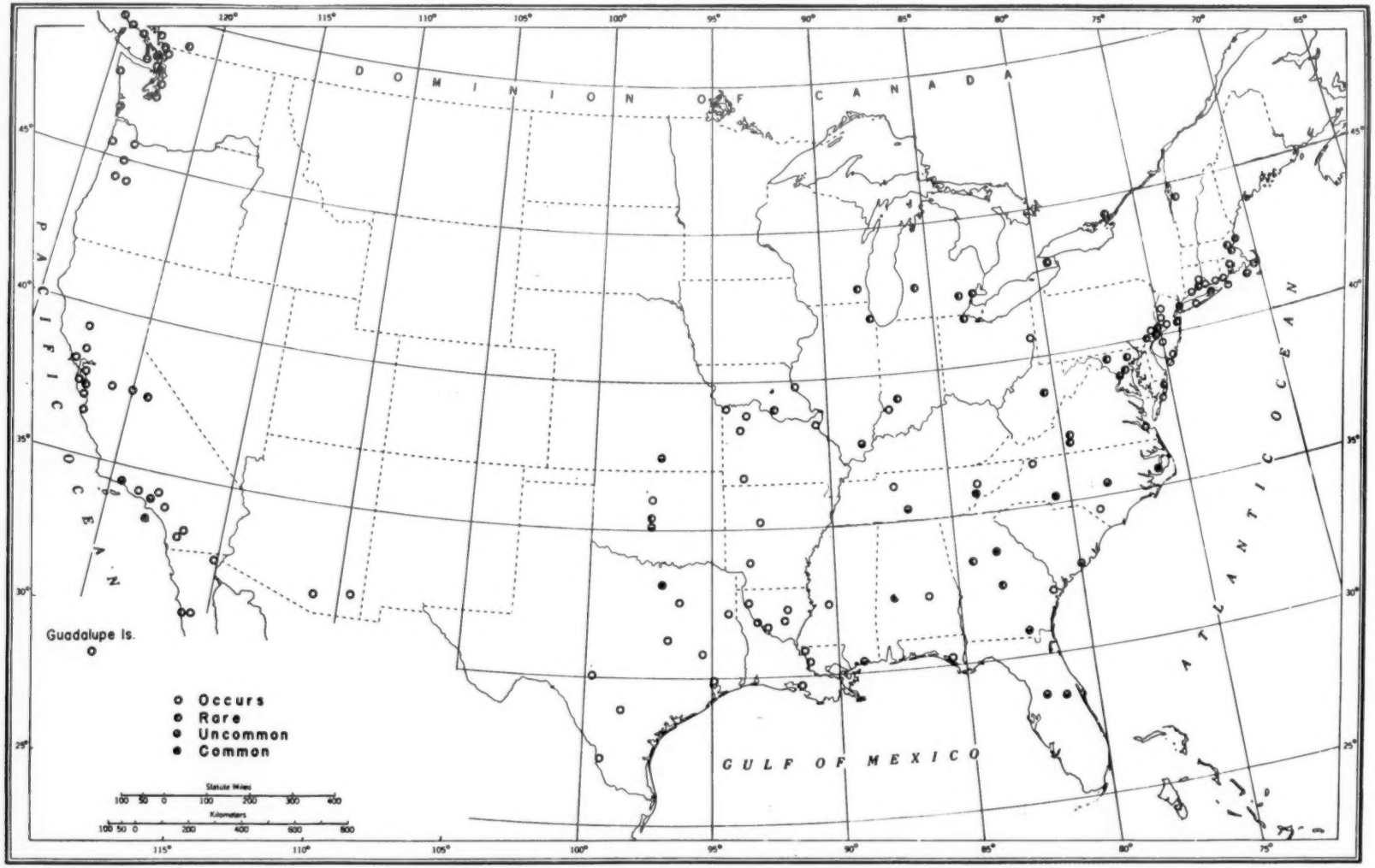
1) Locality—state, and either town, township, or county.

2) Status—common, uncommon, or rare.

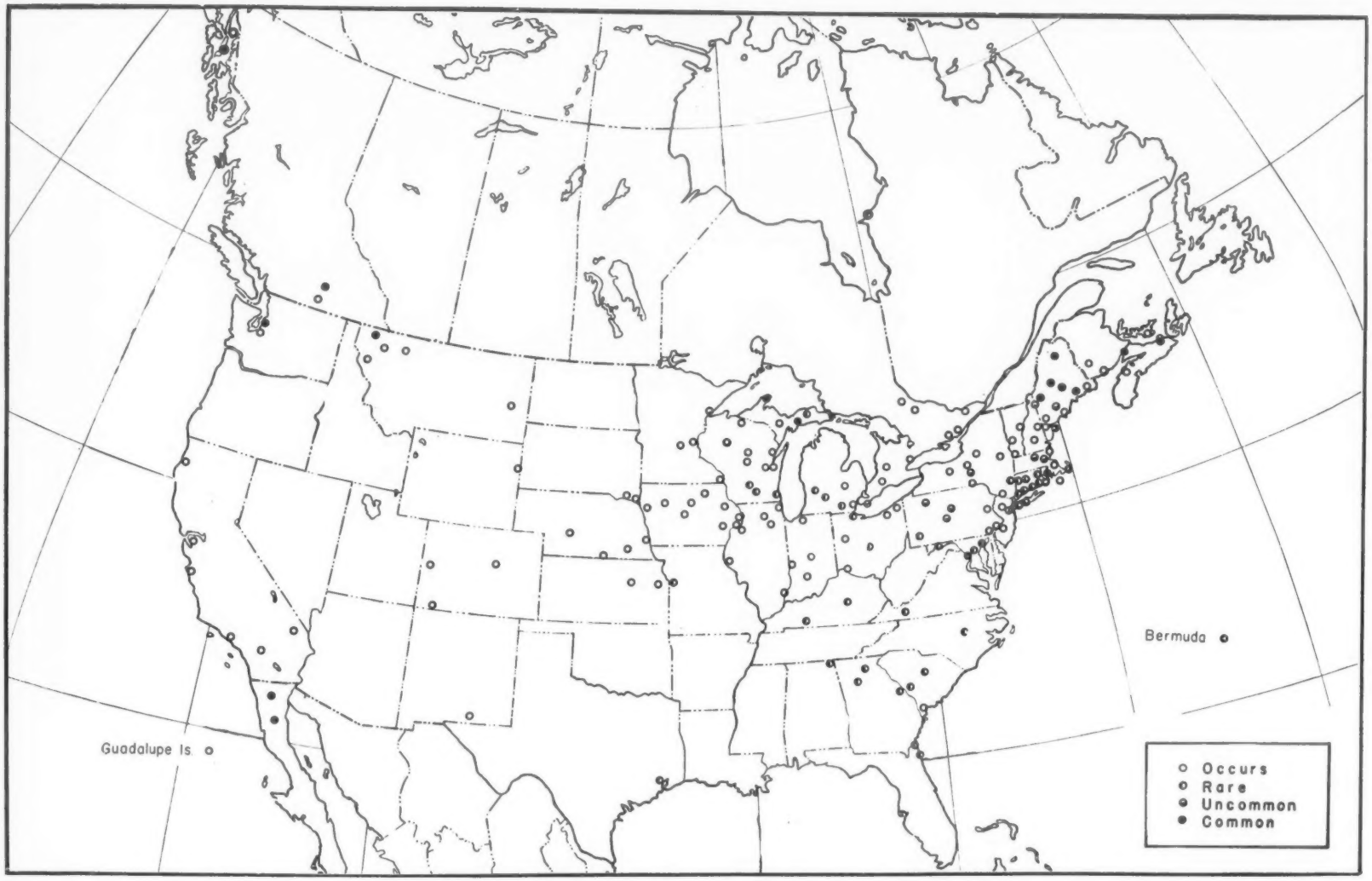
3) Irregularity—whether seen every year, 2 years out of 5, 1 year out of 10, only a single record, etc.

4) Actual dates of occurrence within the prescribed period: the month of January in southern states; Dec. 25 through Feb. 7 in the north.

Send your information to *Audubon Field Notes* as soon as possible after the close of the winter season. Corrected maps will be published in a future issue.



Preliminary map showing the winter distribution of the fox sparrow



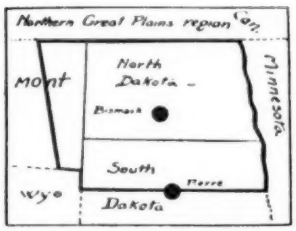
Preliminary map showing the winter distribution of the red crossbill

Forster's tern nests were found, mostly with three eggs. This species is usually associated with lakes of the prairie regions of Minnesota, and in a marsh in an eastern extension of this prairie just south of Minneapolis, Rosenwinkel saw several of these birds nesting during June. He wrote, "Several birds seemed to be sitting on nests rather far out in Cedar Avenue slough. A number of birds seemed to carry food, perhaps to mates on the nest." There are very few records of these birds nesting this far east in the state, but reports are indicative of a recent eastward extension of their breeding range within the state. Around Minneapolis and St. Paul, black terns were nesting during the latter part of May and in one particular marsh, the hatching of five nests took place the first week of June (Gunderson).

Land birds.—A western kingbird nest with one egg was found on July 4 in Anoka County, just north of Minneapolis (Breckenridge). This bird is very common in western Minnesota, and this appears to be another eastward extension of the breeding range of a western bird. Ordinarily prairie horned larks nest very early. A nest with four eggs, probably a second nesting, was found on the Highland Park Golf Course in St. Paut on May 1 (Byron Harrell). The nest was located about fifty feet from a driving tee, with a softball diamond on the other side. With all this confusion two young were successfully raised. Sixteen cliff swallow nests, some completed and some with eggs, were found on a farm building in the very northwestern corner of the state on July 10 (Breckenridge). In the opposite corner of the state near Reno, on August 2, a Carolina wren was observed feeding four young (Milton Thompson and Whitney Eastman). Fourteen yellow warbler nests, mostly with the beginning of an egg clutch, were found between June 8 and 11 (Brother Pius and students). At Heron Lake, members of the Minnesota Bird Club found a Savannah sparrow nest with three eggs on May 30.—HARVEY L. GUNDERSON, *Museum of Natural History, Minneapolis, Minn.*

MISSOURI REGION.—Mr. Cunningham reported that many of the choice areas for bird study in his region were either flooded or isolated by floodwaters for a period of four to six weeks during the nesting season. Consequently his observers had little to report. What little data he has for this season will be included in the fall migration report which will appear in the January issue.

NORTHERN GREAT PLAINS REGION. — Weather conditions during the earlier stages of the 1947 nesting season were generally unfavorable; the



spring was abnormally late with much cold, windy weather. This backward weather continued through the entire month of June, and it was not until July that favorable conditions prevailed. An exceptional rainstorm on June 20-23, brought as much as 7.5 inches to the Des Lacs valley. On the Des Lacs Refuge this resulted in a rise of more than a foot in the lake levels. Some nests were destroyed directly by the rain and increased water levels, but the strong winds that followed caused even greater destruction. ". . . this unseasonable weather during the height of the nesting season has resulted in a terrific toll of nests and newly-hatched young." (Carpenter-Gammell).

Grebes.—There were good nesting populations of grebes on most of the refuges and other larger water areas. Fortunately many of the eggs were hatched before the heavy rainfall, so the production of young was fairly good in spite of the high nest destruction that occurred during and immediately following the June storm. The grebe family as a whole appeared to be doing better than holding its own, and if anything, western and eared grebes were on the increase.

White pelican.—Nelius Nelson sent in an exceptionally interesting report on the Chase Lake Refuge which is located 18 miles southwest of Woodworth, N.D. This lake has a nesting island that has always been good for pelicans and gulls. During the drought years, the lake level went down until it had lost most of its traditional charm. In recent years, however, it has improved and is once again in very good condition. The greatest depth of water between the island and the peninsula is now more than three feet. This year the island was again well populated by white pelicans and gulls. In correspondence with other nesting, the pelicans were about two weeks later than in previous years. On June 18, about 23 were over three weeks of age, and the balance, about 650, were one day to two weeks old. About 35% of the eggs still had not hatched, and it appeared that less than 1% were infertile. From indications at that time, it appeared that 900 to 1000 young pelicans would reach maturity this year; this is similar to the number raised in 1946. In 1937 only 65 of these birds reached maturity.

White pelicans also nested on a small island of about two acres on the LaCreek Refuge in southwestern South Dakota. 22 nests were observed there on May 31st, by Refuge Manager Kenneth Krumm. The birds were nesting in close association with cormorants and it appeared that many of the pelican eggs were dislodged by the scrambling flocks of young cormorants.

Cormorants and herons.—The double-crested cormorant surely must be on the increase, considering the number of large and well-established colonies that occur over much of the region. Most of these were not in existence ten years ago. One nesting colony on Lower Souris consisted of 100 cormorant and 6 great blue heron nests in four old dead elm trees. On the nearest bit of land, a man-made island, ten cormorant nests were found on the ground, and the young here were considerably smaller than those in the trees; these breeders were evidently an excess that could not obtain nesting space in the trees. Another colony about a half mile away in a larger grove of dead trees consisted of 50 cormorant and 4 great blue heron nests.

On the LaCreek Refuge there were 205 cormorant nests on one small island. By July 6, when the colony was last visited, nearly all hatching had been completed and most of the young birds were feathered out. Approximately 90% of the colony had attained near adult size.

Waterfowl.—In general, this has been an unsuccessful year for waterfowl. To start with, the breeding population was down considerably below the levels of the last decade. The excessively cold weather plus the heavy snowfall that occurred during the last week in May, undoubtedly caused considerable damage to nests although this is often difficult to appraise. Krumm reported that about 6 inches of heavy, wet snow fell on the LaCreek Refuge on May 28, with temperatures falling well below freezing. From this date on, many pairs of ducks of the shoal-water species were noted out over the meadows and roadside puddles, possibly an indication that some loss of nests occurred, as the behaviour was similar to that of the early nesting season. During this same time the weather was even colder in North Dakota, although the snowfall was much lighter. Observers on the Des Lacs, Lostwood, and Lower Souris Refuges found no indication of any great loss of nests. In North Dakota, predation was the factor that exerted the most adverse influence on the early nesting of ducks. In a special study conducted by M. C. Hammond, it was found that only 20% of the duck nests on the Lower Souris study area hatched and only 40% on Lostwood. Similar losses were indicated by other observers. To substantiate this information, the relative scarcity of broods during early summer was alarming. It was not until mid-July that any appreciable numbers of broods were noted. As usual, the skunk was the most important nest robber, but many nests were also taken by raccoons, foxes, and crows. On the Lostwood Refuge, Hammond found the remains of 102 game bird eggs under the trees of a single aspen "bluff". Apparently these had been carried in by a pair of crows that nested there; they consisted mostly of duck eggs, but included a few sharp-tailed grouse and coot eggs. It is interesting to speculate on the ramifications of the current waterfowl shortage, and to attempt to properly appraise the relative importance of the various factors that brought it about.

Adverse weather caused considerable nest loss in this region, but nowhere was it quite as bad as in the Des Lacs area. Many nests, particularly those of diving ducks, were either flooded out by rising water levels in late June, or raised to such an exposed position that the terrific winds which followed the rainstorm lashed them to pieces. Some losses also occurred among the young birds as a result of the cold, damp weather. One of the most outstanding features of this nesting season was the shocking scarcity of canvas-backs. The blue-winged teal, gadwall, and other late nesting species had the most successful hatch.

In spite of the scarcity of waterfowl, the Lower Souris Refuge provided one of the most outstanding concentrations of nesting ducks ever witnessed by anyone of my acquaintance. The concentration was on a small island consisting of about one-half an acre, located well out from the shore. This choice nesting spot, one of about sixty islands constructed by dragline in 1935 before the refuge marshes were flooded, is conspicuous in its isolation from anything to obscure it from distant view. A careful and systematic nest count was made by dividing the island into sectors with weighted ropes. We (Hammond, Henry) were able to make a reasonably accurate count of the duck nests: of 160 found, approximately 106 were "active" gadwall nests; other active nests included 2 of pintail and 1 each of mallard, shoveller, and canvas-back. The balance were hatched, destroyed, deserted, or unidentified. There were many abnormal nests containing more than the usual complement of eggs of two colors. There were more than 250 common tern nests but since many young were already out, an accurate count could not be obtained. Two ring-billed gull nests were also found, constituting a new breeding record for the refuge. We even found the nests of six red-winged blackbirds. The island is still without grassy vegetation, the cover consisting of weeds dominated by the Canada thistle. In another part of the refuge a beautiful gold and white (partial albino) gadwall female was found mated to a normal male.

Hawks.—It is evident that the poor season for waterfowl and upland game birds is more inclusive if the scarcity of hawks can be taken as any indication. Red-tailed hawks on Lower Souris were the exception; the other resident hawks were very scarce. On the Des Lacs Refuge, it was a rare occasion to observe even a single marsh hawk where in previous years they had been common (Carpenter-Gammell). This also applied to Lower Souris, where the nesting population was estimated at around 20% of that of the pre-war years. The Swainson's hawk was also alarmingly scarce, as was the ferruginous rough-leg.

Upland game birds.—The continued scarcity of upland game birds, plus the lack of observations of broods, indicated that these birds are still at a low population level. Very few broods of pheasants

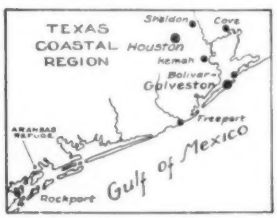
were noted, and even fewer of sharp-tailed grouse. No nests or broods of prairie chickens, ruffed grouse, or European partridges were reported. This is true even in South Dakota, with the exception of LaCreek. Larrabee sent a typical statement from the Yankton area, "The effect of unfavorable weather was especially severe on young pheasants." A sharp-tail nest on Lostwood was hatched before June 26 (Hammond), and young birds the size of meadowlarks were observed on Lower Souris on July 7.

Gulls and shorebirds.—Nelson reported that on the Chase Lake Refuge, there were considerable numbers of California and ring-billed gulls nesting about the rim of the island where the pelicans were nesting. Present indications were that approximately 200 California gulls and perhaps 850 ring-billed gulls would reach maturity. As with the pelicans, they were later in hatching due to the cold spring. Instead of the usual one, there were two large nesting colonies of Franklin's gulls on Lower Souris.

Shorebirds appear to have suffered the least from adverse weather conditions this year, whereas the nests of songbirds probably suffered the most.

Perching birds.—A series of Arkansas kingbird nests, discovered for nesting study purposes on Lower Souris, was entirely destroyed, the majority by the heavy rains of late June, and the remainder by predators. House wrens were again found nesting in bank swallow holes along the Upper Des Lacs Lake (Carpenter - Gammell). Many songbirds were comparatively scarce this year. Included is the cowbird which provides an interesting note from Des Lacs, " . . . of all nests observed this season, not a single one contained a cowbird egg, and no birds were observed feeding cowbird young (Carpenter-Gammell).—C. J. HENRY, *Lower Souris National Wildlife Refuge, Upham, North Dakota.*

TEXAS COASTAL REGION.—Except for very heavy rains on May 18, 20, and 23, and moderate rains from July 18 to June 24, the entire breeding season was abnormally dry. Temperatures were about normal.



General conditions.—Most of the small woods birds that began nesting in early April had a successful season. But pied-billed grebes, green herons, fulvous tree ducks, black-necked stilts, Wilson's plover, and willets suffered heavily from the drought. On the other hand, the hard rains of late May came at precisely the right time to flood many nests, and the rains of late June did the same thing for many new nestings attempts. Brown pelicans, roseate spoonbills, both the gallinules, black-necked stilts, bob-whites, and gull-billed, Forster's, and least terns were the chief sufferers from the rains. Some of these birds (notably the spoonbills, rails, gallinules, and least terns) made very late nesting attempts that were partially successful. But in general, all the birds named above had a poorer-than-average season. On account of delayed nestings due to the rains, many egg dates were extremely late. Laughing gulls, egrets, night herons, and (most especially) white-faced glossy ibises did well. The Audubon sanctuary on Vingt'un Island barely held its own, but was not flourishing.

Water birds.—Mrs. Hagar, at Rockport, reported young white pelicans on June 20. At the Bay City rookery (80 miles west of Houston), Meitzen found conditions as follows on May 4: roseate spoonbill just beginning nest construction; white ibis present but not yet building; nests with eggs (or a few newly hatched young) of water-turkey, Mexican cormorant, little blue heron, American egret, snowy egret, Louisiana heron, and black-crowned night heron. Some normally early nesting dates were as follows: green heron nest with 3 eggs at Cove on April 25 (McKay); king rail nest with 5 eggs at Anahuac (east of Galveston Bay) on April 17, and a killdeer nest with 4 eggs nearly ready to hatch on May 21 (Meitzen). An unusually early record was a clapper rail with four young chicks a day or two old at Kemah on March 22 (Miner and Wilcox). McKay reports that a king rail caught in a muskrat trap near Anahuac in the last week of January had a well-developed egg in her ovary; another caught in the same week had feathers plucked from her breast, as if she were brooding; another laid a hard-shelled egg while in a trap on February 6; and a bird at Cove had a brood of chicks on March 5.

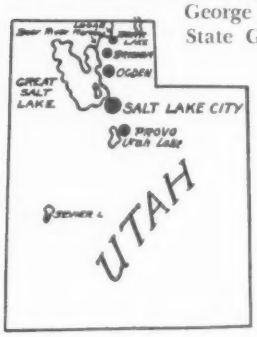
Late dates, doubtless representing new nesting attempts after the rains of late May and late June, were a king rail nest with 5 eggs on Galveston Island on July 8 (Webster); purple gallinule nest with 6 eggs at Cove on July 17 (McKay); Florida gallinule nest with 8 eggs near Galveston on July 8 (Webster), and one at Cove with 5 eggs on July 12 and an additional egg the next day. McKay says of the purple gallinules: "Many nests were destroyed in the Cove region by a rise in the Trinity River after the middle of May, but the birds were making new nests (one with an egg) on May 25." A black-necked stilt colony at Cove had many eggs from June 1 to June 28, though many nests were washed away by the rains of late June. Least tern eggs nearby were washed away at the same time, but McKay found other nests at the same place on June 28 and July 4, with young hatching on July 20. A late date for killdeer was June 28, when McKay found a nest with 4 eggs at Cove.

Birds of prey.—Of the following data, McKay reports those from Cove, and Meitzen reports the others. Red-shouldered hawk: nest with 2 fresh eggs near Navasota (70 miles northeast of Houston)

on March 30; another nest there on June 4 with 2 young about three weeks old; nest near Hempstead (50 miles northeast of Houston) on May 3, with 3 young about three weeks old; nest near Houston on May 10, with 3 young about four weeks old. Caracara: 2 young big enough to leave the nest at Cove on April 25; a completed nest on top of an old nest at Cove on June 8, with 1 egg June 14; another nest at Cove on June 15, with adult sitting on it; nest with 2 fresh eggs near Bay City on March 30, these eggs being gone two weeks later, and the same nest having 2 more eggs in it on May 4. Screech owl: nest with 4 eggs in a hollow tree in Houston on April 9. Horned owl: adult with 3 well-feathered young near Bay City on May 4. Barred Owl: nest with 3 young in hollow tree near Navasota on March 29.

Other birds.—Downy woodpecker occupying nesting hole and obviously nesting in it in Houston on April 13; Carolina wren nest with 5 eggs at Cove on June 7; mockingbird young out of nest at Houston on April 23; loggerhead shrike carrying nesting material on Galveston Island on April 21, and a nest with 6 eggs at Cove on April 25; redwing nest with 3 eggs at Cove on May 17, and other nests with eggs on June 1 and July 19, but all red-wing nests examined on Galveston Island on July 8 were deserted; bronzed grackle young all out of nest at Victoria by June 16; painted bunting singing and apparently still nesting at Victoria on July 17 (Mrs Braman). Mockingbirds were carrying nesting materials for new nests on May 3 in Houston; and young red-headed and red-bellied woodpeckers were out of the nest 30 miles north of Houston on June 17.—GEORGE G. WILLIAMS, *The Rice Institute, Houston, Texas.*

UTAH REGION.—The mild and wet weather which continued into summer was most favorable to all nesters, especially waterfowl. As cited by George Cox, custodian of the New State Gun Club, many new sites were occupied by nesting waterfowl this year, owing to the increased watered and vegetated areas; he feels that this captured many northern breeders, and accounts in part for an increase of at least 10% in breeding waterfowl, Canada geese excepted. He also reports a successful rearing of large broods.



Bird Island.—Bird students will regret the passing (at least for some time) of Bird Island in Great Salt Lake, as one of the largest and most interesting rookeries in the west. In 1932, Dr. William H. Behle, while studying the bird rookeries of that area, estimated the breeding population of Bird Island at 4000 pelicans, 20,000 California gulls, and 30 great blue herons.

On May 25, 1947, Drs. Behle and Woodbury of the University of Utah, with some biology students and local photographers, visited the island for the purpose of banding and photographing the colony, only to find it had been abandoned except for a half dozen California gulls. Two reasons for this departure were: formation of a sand bar connecting the island with the mainland and allowing encroachment of predatory animals; and the availability of nesting sites within the newly erected refuges bordering Great Salt Lake, which enabled great blue herons and California gulls to breed nearer to their food supplies.

Drs. Behle and Woodbury and students banded 2500 California gulls at Farmington Bay on June 6, as against 1000 in 1946; they placed the 1947 population at 13,000, showing an increase. No report came from the Utah Lake rookery this year, but using Dr. D. Alden Beck's figures for 1946 as a basis, with 3000 at Rock Island and 8500 at Geneva, we have more than ample numbers to account for the former Bird Island population.

The pelican situation is not disposed of so easily; although this species abandoned Bird Island several years ago, there has been no increase in other rookeries, nor has any new colony been established in Utah.

Bear River Refuge.—John B. Van den Akker, of the Bear River Refuge, reported a successful waterfowl season, but with the population generally down. Consideration in this case should also be credited to the larger acreage of nesting sites outside the refuge, which the larger water supply provided. This condition could easily account for the shortage on the refuge itself. The following list from the B.R.R. indicates the general trend of nesting birds at other points, with one exception.—the California gull: double-crested cormorant, 78 nests, increase of 2 over 1946; great blue heron, 10, decrease; snowy egret, 250 nests, great increase; black-crowned night heron, 75, decrease; white-faced glossy ibis, 350, approximately the same; avocet, 1021, definite increase; black-necked stilt, 86, increase; California gull, 3097, decrease of 417 nests; Forster's tern, 300, decrease; Caspian tern, 6, decrease; black tern, 100, decrease. "In addition to the above, there appears to have been an increase in the Wilson's phalarope nesting, and the number of immature Franklin's gulls on the area suggests that they nested quite extensively" (Van den Akker).

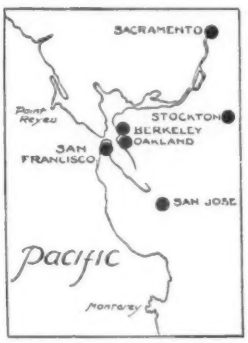
Hawk nests.—The following nests of accipiters were reported: Cooper's hawk, May 30, Juab County, 4 eggs (Lockerbie and Tanner); July 13, 2 eggs (Nelson); sharp-shinned, July 13, 4 eggs (Nelson). Donald Daynes found a golden eagle nest with young, in Salt Lake County, April 12; and a nest of the same species in Millard County had young about 2 weeks old on May 31 (Nelson). N. W. Nelson also contributed the following: marsh hawk,

6 left nest, June 28; duck hawk, 3 young left nest, June 26; prairie falcon, young left nest near Kanab between May 18 and 24; young left nest near Clear Lake, May 31; young ready to fly near Panguitch, May 30; young left nest in Salt Lake County, June 8; courting had been noted at the latter site as early as February 26.

Sage grouse.—George Tripp, doing research for the Fish and Wildlife Service, and Charles Madsen and William J. Williams, residents, all agree that the sage grouse had an extra good breeding season in the Strawberry reservoir refuge area. My own visit on July 26 was a little disappointing, however, as I found only 5 broods (parts of which had been killed by automobiles) and 40 adults in 6 hours of tramping.

Other nests.—The following nest records were of particular interest: long-eared owl, May 30, 2 young and 4 eggs (Lockerbie and Tanner); Williamson's sapsucker, young out of nest, July 26, Panguitch Lake (L.); tree swallow, still feeding young, July 26, Strawberry reservoir (L.); house wren, feeding young in nest, July 26, Strawberry reservoir (Tripp); robin, four nests on May 19 in Mt. Olivet Cemetery, one with 3 eggs, one with eggs hatching, one with young, and one abandoned (Taylor); olive-backed thrush, full clutch June 22 (Daynes); plumbeous vireo, male brooding and singing while on nest (L., T.); yellow warbler, June 22, two nests, one with young; bobolink, male feeding 2 young out of nest, July 25, Parley's Park (L.); spotted towhee, two nests with 3 and 4 eggs on May 30; black rosy finch, feeding young out of nest on August 3, Alta; Brewer's sparrow, two nests, May 30.—C. W. LOCKERBIE, *223 West 9th South St., Salt Lake City 4, Utah.*

SAN FRANCISCO REGION.—In this area the summer stay of most birds is even more transitory than it is at other places near the same latitude.



The year to year contrasts are especially great and in some years the stay of summer birds is remarkably short. There is no time when a population is present that is characteristic of the area for the whole year or even for the nesting season. An adequate description of a unit of population involves the element of time, and this requires a separate description for each species. The length of stay is as important as the number of individuals. There are daily changes in each species, but they are not all of the same kind.

The continued summer drought had an increasing effect on the birds as the season progressed. It resulted in greatly reduced food supplies, since plants produced few seeds and fruits, and species and individuals of insects were remarkably few. Those insects that were present tended to remain dormant and inaccessible. Land birds had difficulty in finding enough food even for early broods, and there was no second nesting. Flycatchers were forced to search for insects on the ground, and many birds crowded about houses to eat the cultivated fruits.

Water birds.—More observations have been received concerning water birds than for several years. These pertain to early migration as well as to the status of some kinds that nest in the region: eared grebe, Dumbarton Bridge, 7 on July 2 (Kelly); sooty shearwater, Stinson Beach, large raft on July 14 (K.); white pelican, Dumbarton Bridge, about 50 on June 15 (E. Smith), and about 150 on July 2 (K.), Tomales Bay, 1 on July 13 (Rigby); brown pelican, Moss Landing, 93 on July 12 (Andersons); green heron, Santa Cruz, 3 young left the nest about July 2 (Richardson); American egret, between San Jose and Alviso, young in nests that were occupied on April 27 were being fed on July 20 (E.S.); red-breasted merganser, Moss Landing, 7 females on June 14 (A.); black-bellied plover, Moss Landing, one on July 12, 14 on July 20 (A.); semipalmated plover, Moss Landing, 3 on July 12 (A.); snowy plover, Dumbarton Bridge, 6 on June 15 (E.S.); Hudsonian curlew, Alameda, July 17 (K); long-billed curlew, Dumbarton Bridge, July 15 (K.), Alviso Marshes, 12 on July 19 (R.); marbled godwit, Alviso Marshes, 15 on July 19 (R.); willet, Moss Landing, 700 on July 6 (A.), Dumbarton Bridge, about 40 on July 15 (E.S.); dowitcher, Dumbarton Bridge, about 20 on July 15 (E.S.), Moss Landing, small flock on July 20 (A.); knot, Moss Landing, 15 on July 20 (A.); western sandpiper, Dumbarton Bridge, hundreds on July 2 (K.); red-backed sandpiper, Alviso Marshes, 6 on July 19 (R.); black-necked stilt, Moss Landing, young on July 6 (A.), Dumbarton Bridge, at least 8 on July 15, yelping and staggering (E.S.); avocet, Dumbarton Bridge, one swimming and guiding a young chick on June 15 (E.S.), downy to grown young on July 2 (K.), Moss Landing, young on July 6 where nest was seen on April 13 (A.); Wilson's phalarope, Dumbarton Bridge, about 100 on July 15 (K.); Heermann's gull, Moss Landing, 34 on July 12 (A.); black tern, Dumbarton Bridge, July 2 (K.) and July 15 (E.S.); Caspian tern, Dumbarton Bridge, colony larger than 2 years ago, most of the nests with eggs and recently hatched young on June 15 (E.S.), Moss Landing, adult feeding young in flight on July 12 (A.).

Land birds.—The following species were considered by the observer to be notable for the locality: road-runner, Stephens Creek Reservoir, Santa Cruz Mountains, 1 on July 26 (Rigby); pigmy owl, Stephens Creek, 1 bathing on June 14 (R.); white-throated swift, Devil's Slide, Pedro Point, 4 on July 5 (R.); purple martin, near Cupertino, 4 on July 20 (E. Smith); white-breasted nuthatch, Dimond Canyon, 2 at different times on July 18 (Seibert); blue-gray gnatcatcher, Felt Lake, Santa

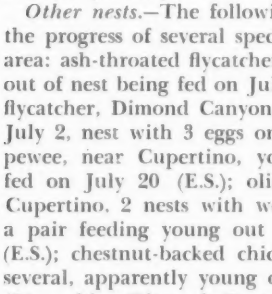
Clara County, one on June 21 (R.); cowbird, Dimond Park, young one on June 18 and July 1, near Brookdale Park, Oakland, one on July 17 (S.).

Mr. and Mrs. Anderson report that on July 20 they saw a black and white warbler along the Corral de Tierra Road in Monterey County. They recognized the species by its behavior as well as its pattern of color. Mrs. Kelly saw an indigo bunting singing on a lupine stalk on June 23 at Calaveras Big Trees. This is the second time she has seen this bird in California, but so far no specimen from the state has been preserved.

Hawk nests.—Nesting status of several kinds of hawks has been reported, as follows: white-tailed kite, between Alviso and San Jose, incubation just begun on July 6 at nest in top of tall eucalyptus (E. Smith); goshawk, Calaveras Big Trees, adult shading 3 young from sun in nest in top of broken fir tree (Kelly); golden eagle, Stanford University, adult and young on June 7; duck hawk, Devil's Slide, Pedro Point, adult and 2 grown young on July 5 (Rigby); sparrow hawk, East Oakland, where there had been 2 eggs on April 5, first young left nest box on June 2, followed by the rest within a week (Seibert).

Other nests.—The following nesting records show the progress of several species at some place in the area: ash-throated flycatcher, near Cupertino, young out of nest being fed on July 20 (E. Smith); western flycatcher, Dimond Canyon, young just hatched on July 2, nest with 3 eggs on July 8 (Seibert); wood pewee, near Cupertino, young out of nest being fed on July 20 (E.S.); olive-sided flycatcher, near Cupertino, 2 nests with well-developed young and a pair feeding young out of the nest on July 20 (E.S.); chestnut-backed chickadee, Dimond Canyon, several, apparently young out of a nest, on July 8 (S.); robin, Dimond Canyon, young left nest on July 4 (S.); hooded oriole, Alameda, adult brought young to garden on July 11 (Kelly); Bullock's oriole, Oakland near San Leandro limit, pair nesting in birch tree on school yard on June 14 (S.).—JEAN M. LINSDALE, *Hastings Reservation, Jamesburg Route, Monterey, Calif.*

SOUTHERN CALIFORNIA REGION. — The weather feature most significant for nesting birds was the rainfall during the past winter—far subnormal in quantity (except November) but well distributed through March with some drizzles in April and May. Thus the growth of herbs and grasses started with an early rush and struggled through on meager moisture to a maturity of sufficient luxuriance to meet most of the needs of early nesting species at least.



Drying out of the foothill areas was the worst in years, however, and several extensive forest fires, in both chaparral and pine areas, wreaked damage to be calculated only in coming years. The Big Tujunga fire in early August brought many refugees to Mr. & Mrs. Shearer's yard in Sunland, 3-6 miles away,—woodpeckers, flickers, ash-throated flycatchers, etc. Species of lesser powers of flight very probably perished, and the 3000+ pairs of birds which would have nested in the 3500+ acres burned by this one fire cannot help but be seriously affected for many years by the loss of so much cover.

Water birds.—Ken Stott, Jr., and Jordan Roux visited Los Coronados Islands on June 20 and found black petrels, Brandt's cormorants, and western gulls with eggs in some nests and young in others, and brown pelicans with young about half-grown. At the opposite corner of our region, in the Colorado River Valley near Needles, a rookery of 15 double-crested cormorant, 1 horned owl and 4 American egret nests was in operation on April 24 (Gale Monson)—just at the peak of the egret migration on the coast. At least 2 pairs of green herons nested at San Gabriel River Sanctuary (S.G.R.S.), and an immature was at Dominguez Lagoon, April 19 (R. Mall); but this pond, which in wetter years harbored nesting teal, ruddy ducks, grebes, rails, etc., was dry this year by July.

In the San Bernardino Mountains, too, the last few years of successively subnormal precipitation have turned Baldwin Lake into an alkaline flat. The colonies of eared grebes and yellow-headed blackbirds were absent; but the shallow end of Big Bear Lake, although of limited extent, provided the best waterfowl habitat in years. Coots, cinnamon teal, and pied-billed grebes, all with young on the water, were estimated at 500, 80, and 15, respectively, on July 26 (Cogswell). Other species present through the summer were: mallard, 1; pintail, 3; ruddy duck, 15; redhead, 20; ring-billed gull, 60+ (including a few immatures); and Caspian tern, 10. The first three have nested at Big Bear in the past and all might nest there, especially if disturbance by man could be curtailed. Two male ring-necked ducks and both sexes of canvas-backs (6 on May 25 to 1 on July 26) also summering at Big Bear were probably crippled or otherwise subnormal individuals. A duck hawk was seen stooping at ducks and shorebirds or flying over nearby pine-forested mountains on each of our three visits to Big Bear (May 24, June 29, July 26).

Elizabeth Lake in northwestern Los Angeles County was taken over as private "recreation" club grounds, but small numbers of eared grebes, mallards, and ruddy ducks (20+) persisted at least through June 22. The cinnamon teal, pintails, shovellers, and redheads present last nesting season were not in evidence.

Along the coast the gun clubs which formerly provided fresh water ponds for some nesting waterfowl and marsh birds have adopted the practice of draining their ponds soon after the hunting

season is over. At Bolsa Chica and at Playa del Rey, former haunts of grebes, stilts, rails, coots, teal, ruddies and even a few of the larger ducks, were completely dry during the early summer. A very few individuals survived on nearby lagoons, the coots and stilts producing a few young; but these tidal estuaries are gradually being dredged, filled, or narrowly channeled by dikes for mosquito control, oil well drilling, and the like. Such practices, if continued, plus the increasing use of inland ponds and coastal bays for boating and swimming will bring the virtual end of nesting marsh birds near Los Angeles. Certain species have become adapted to nesting in city park ponds, the semi-domestic mallards, of course, being most widespread, and coots and pied-billed grebes almost as much so; this year the ruddy duck joined them—some 14 adults (1 male) and 4 young at Fairmont Park, Riverside, on May 16 (Wilson).

The sandy beach nesters suffer even more from direct human interference. No snowy plovers or least terns could be found on the site of what was their largest colony at Bolsa Chica beach, inhabited this year by hundreds of squatters replete with tents and kitchen equipment. Small colonies of least terns probably nested on dry flats around Orange County estuaries (40+ adults, total, in June) and 8 adults with young too small to fly were found along the San Gabriel River one-third mile from its mouth on July 13 (C.). On the beach sands the only colonies I was able to find between Newport and Malibu were: about 30 birds (including young on the wing, July 13) near the Santa Ana River mouth, about 50 near El Segundo, and 10 at Malibu Lagoon. Miss Wilson reported 12 from Carlsbad, July 18, and I found 50, including immatures, at L.A. River mouth, August 10; but it is unknown whether either was a nesting site. The snowy plover, apparently even harder hit, nevertheless made news in the public press when one stuck to its nest among crowds of bathers on Manhattan Beach—and was captioned a "lease tern" by one photographer!

Upland game birds.—Some species were apparently below normal numbers, *e.g.*, California quail in the Burbank area, probably due to ectoparasitic infestation for birds did much scratching; 2 pairs under close observation had but 2 and 4 young each (Daugherty). A brood of 16 on June 8 at Banning (W.), and many adults plus young near Elsinore on May 17 (C.) indicate better conditions there. Gambel's quail in the Havasu Lake area apparently had a good hatch, the first young being noted on April 10 (G.M.).

One species which definitely increased as a breeding bird was the band-tailed pigeon, despite a scarcity last winter. In many parts of the San Bernardino Mountains, scattered pairs and small flocks (including immatures) were tallied at 15 to 100 per day's trip from early April through July; 13 were seen in Banning on May 18 and June 1 (W.), and 20 in Alhambra on May 12 (C.), as well as the normal few in Pasadena and Altadena.

Robin.—Robins are gradually spreading as breeding birds in city residential and park areas; they are now regular not only in S.W. and S. Pasadena, Flintridge, and parts of Glendale, but also in Monrovia, and Griffith Park. This year they were present throughout the summer near 6th and Rossmore, Hollywood (W. R. Dawson), where 5 adults were seen on July 4, and 1 was carrying food on August 13 (Stultz). On June 2, 5 were noted at Gilman Ranch, Banning, one of them feeding young; also, one young still in down was recorded at Sylvan Park, Redlands (W.).

Vireos and warblers.—The Cassin's solitary vireo was scarce in coast slope canyons, averaging less than 1 per visit to suitable habitat, and a maximum of 3 at Crater Camp, Santa Monica Mountains, July 12 (Stultz). Yellow warblers were definitely down at S.G.R.S. and at Griffith Park; black-throated gray and Audubon's were apparently so in the lower pine belt, although Audubon's was numerous at higher altitudes.

Cardinal.—A count of 16 singing male cardinals was made on April 6 in approximately 120 acres of willow-cottonwood woodland along a 1½ mile stretch of river bed at S.G.R.S. (Cogswell). One nest which had three eggs under incubation on April 13, was robbed (by jays?) by the 26th; another nest held young on May 29, and a second brood on August 1.

Other nesting land birds.—Other selected breeding season reports were: white-tailed kite, May 26, pair N.E. of Exeter, Tulare County (Daugherty), 35-40 miles east of the previously recorded range in San Joaquin Valley. Screech owls, which have used a nest-box in Pasadena since 1930, this year had full-feathered young on May 8; one was out of the box on the 15th, and all four on the 18th. They are frequently seen catching moths around street lights, and one was seen once (1930) with a goldfish in its talons (Quattlebaum). Horned and barn owl young, both out of nest and loudly calling for food, were reported from the Azusa-Glendora foothill area, June 25 (C., N. Short). Of 3 pairs of burrowing owls at Redondo Beach, only 1 raised a brood successfully (Shuart). Traill's flycatchers arrived at S.G.R.S. between May 11 and 18 and increased to 6 "singing" birds in ¼ mile of river-bottom woodland by June 15; a family of young was seen out of nest on August 3 (C.). A pair of western flycatchers at the Santa Barbara Museum raised 3 broods for a new record (Rett). Tree swallows, which arrived at S.G.R.S. by February 14-15, completed nesting and left the area between June 15 and 25. Purple martins nested in ventilator holes of a Whittier theater, bringing out 2+ young on July 1 (C.); others were found at Newport Beach in April, Long Beach on June 13, and Charlton Flats through April and May. The largest colony (10-15 adults) was near Heaps Peak in the San Bernardinos, May through July. One Leconte's thrasher seen on June 29 near Cushenbury Springs, on the desert slope of the San Bernar-

dino Mountains, was in the exact area where it had been found for 6 years (Cogswell, N. Short). An estimated 100 mountain bluebirds, including young being fed out of the nest, were on a single meadow south of Baldwin Lake on July 22 (Stultz, Daugherty). Blue grosbeaks were common at S.G.R.S., with young out on August 4. 5+ singing grasshopper sparrows moved from one alfalfa field to another on the adjoining Pellissier Ranch and disappeared when their third "stand" was mowed in July. Single grasshopper sparrows were seen at Puddingstone Dam, June 7, and on Oat Mountain, near Fillmore, June 8 (C.). Old-time nesting areas of the Brewer's sparrow in upper Cuddy and Chuchupate Valleys near Mt. Piños had 2 singing birds each on June 22, and a single immature Bell's sparrow (probably *A. b. canescens*) was found at Mill Potrero N.W. of Mt. Pinos. (C.). A California Bell's sparrow (*A. b. belli*) was singing on the hills S.W. of Lake Elsinore on May 17; heretofore it was unrecorded in the Elsinore area although this is in the heart of its range (C.). A Savannah sparrow, of a rather pallid subspecies, seen at close range on a meadow east of Big Bear Lake on June 29 (C., N.S.) suggests a possible southward extension of the breeding range of *P. s. nevadensis*, but time did not allow search for a nest.

Post-breeding dispersal. — White-winged doves present from May on at Yaqui Well, western Borego Desert, San Diego County, were considerably earlier than normal for that far west (Stott, Roux), and perhaps nested there. A family of western bluebirds and 2+ house wrens in cottonwoods along the dry Mojave River 5 miles south of Victorville on June 29 (C., N.S.) probably represent an unusual dispersal to this flat, hot desert locality. Movements to higher altitudes are indicated by a covey of California quail at 7782 ft. on So. Hawkins Peak, San Gabriel Range, July 27 (F.S. lookout); 2 black phoebes at Baldwin Lake, 6700 ft., and 2 female Scott's orioles and 2 green-backed goldfinches at 6800 ft. near Big Bear Lake on July 22 (S., D.).

Summer visitants.—Sooty shearwaters were found in "fair numbers" off Los Coronados Is., June 20 (S., R.), 2000 were off Santa Barbara on July 12 (W. G. Abbott) and 20-30 were seen close inshore at La Jolla, July 18 (W.). Heermann's gulls were back in flocks of 100+ by mid-June along the Santa Monica Bay shore, but as usual were practically absent from the Long Beach area for reasons unknown. The post-breeding influx of wood ibises was represented only by 57 at Calexico, July 5 (S., R.) and 12 at Del Mar, July 18 (W.).

Rarities.—A pair (or 2 pairs) of yellow-billed cuckoos were at S.G.R.S. and nearby San Jose Creek after an absence of several years (Comby, Cogswell). A short-eared owl competed with a marsh hawk for forage space over marshes south of Huntington Beach, July 10 (Edward Chalif)—one of the very few summer records. A pygmy owl was heard on May 17, at Charlton Flat, San Gabriel Mountains (Stultz). The greatest rarity was a goshawk on July 22 above Big Bear Park (7500 ft. altitude), San Bernardino Mts. It flew into a tree and was watched through binoculars at 30 yards by Mrs. O. M. Stultz and Mrs. C. H. Daugherty, both of whom are familiar with the species on its southernmost recorded nesting grounds in Sequoia, some 200 miles to the north.—Howard L. Cogswell, *San Gabriel River Wildlife Sanctuary, 2610 S. Durfee Ave., El Monte, Calif.*

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A PROPOSAL FOR A NEW DEPARTMENT

Richard H. Pough

IT HAS seemed to me for a long time that there is a need for some sort of clearing house on ornithological field projects. We now have in this country thousands of very competent amateur ornithologists, many of whom would like to use their skill in ways which would advance our science. We have on the other hand only a few professionals to cope with a science that in recent years has developed tremendously expanded horizons.

To date, the average amateur has very largely devoted himself to the study of migration and distribution, chiefly because most of the books he owns deal almost exclusively with such matters. Unfortunately it is a study that has been intensively pursued for so many years that further efforts along these lines are not likely to produce much that is significant.

The above statement should be qualified, however, by specifying that it is not true of quantitative studies of the above topic, but only the qualitative. We still have all too few studies that enable us to say that the migration of this or that species was in 1947 only 40 per cent of what it was in 1946. Studies like the one which appears in Geoffrey Carleton's recent *Birds of Central Park,* which establishes for a period of five fall seasons a ratio of the abundance of each warbler species to the total warbler flight. Yet, such data is far more valuable and significant than getting a new record of a bird one day earlier or later than any previous report. Studies that deal with whole populations, average behavior and establish yardsticks for the normal are far more important than these occasional aberrant individuals that depart widely from the normal.

It seems to me that the reason for this situation is not hard to find, nor should the cure be too difficult. In large part it stems from the fact that the technical ornithological literature has increased so in volume and in the number of publications through which it is scattered that the average amateur does not keep up with it. And to further complicate matters, a great deal of very significant material has appeared almost exclusively in foreign publications (many not even in our own language).

What is the answer? The amateur, who is largely interested in the field aspects of ornithology because it provides him with much needed outdoor recreation and specific objectives for vacation trips, is never going to know, through his own knowledge of the literature, what projects might prove to be both fun and productive of worth while results. Is it not up to the professional to keep the amateur posted? Every day those of us who devote our lives to ornithological work are stumbling on gaps in the knowledge of American birdlife and in many cases we find our own work handicapped for lack of data that we have no time to go out and get.

What I wish to propose and will offer to edit—at least to get it started—is a department in *Audubon Field Notes* which will have for its purpose the correction of this state of affairs. As I visualize it, it would consist of two columns or sections. One would be headed: *Projects Wanted,* or some such title; the other, *Research Opportunities for Amateurs.* For the first, I would solicit offers from amateurs who would indicate a willingness to consider a project that appealed to them and that could be handled within specific limits as to time, place, etc.

For the second, I would need the help of professionals who would sum up some ornithological puzzle or problem briefly, yet interestingly enough to stimulate some amateur to write him about tackling it. Some projects, it is to be hoped, could be done almost anywhere. Others, undoubtedly, would require someone willing to devote a vacation to them.

As an example of the sort of thing I have in mind, I might cite the case of Charles Broley, who stopped in to call on me on the way to Florida the first fall after he retired from business. He had no detailed plans and offered to undertake some study that seemed likely to produce some interesting results. Among the things we discussed that day was the need for some banding of bald eagles. Now, nine years later, he has banded some 950-odd young eagles with startling results that have completely altered some long-held ideas about this species (*Wilson Bulletin,* March 1947). Right now, I know of other amateurs who have retired from business or can take long vacations and like to travel, who probably could be interested in undertaking some research project in the field.

Others simply need a hint that there is a serious gap in our knowledge of some species that occurs near their home. It may be that we don't know the incubation period, the dependency period of the young or the size of the normal territory claimed by the bird. Most amateurs generally assume that all this sort of thing is known when such is far from being the actual case. How many amateurs who pick up a dead bird know how badly many of our museums need skeletal material of many fairly common species?

Much of the argument Drs. Lowery and Williams have been having about trans-gulf migration could probably be settled if a few amateurs would take some boat trips in the area. There are certainly plenty of freight steamers and tankers crossing the Gulf—and many, undoubtedly, would be only too glad to cooperate to the extent of carrying an observer at the right season of the year.

This gives an idea of what I have in mind. The rest is up to Mr. Amateur Ornithologist and Dr. Professional Ornithologist!

What do you think? Will you help?

A Few of the Books

That Belong in Every Ornithological Library

A GUIDE TO BIRD WATCHING.....$3.50
Joseph J. Hickey
This book is an absolute **must** for every serious bird student

THE ART OF BIRD WATCHING.....$3.50
E. M. Nicholson
Although it was published in 1931 and deals with bird-watching problems in Great Britain, this is still a very helpful book.

MODERN BIRD STUDY.....$2.50
Ludlow Griscom
An interesting discussion of field problems

THE BOOK OF BIRD LIFE.....$3.75
Arthur A. Allen
A wealth of factual material about birds and their habitats

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